

## 2014-2015 School Nominee Presentation Form

#### **ELIGIBILITY CERTIFICATIONS**

#### **School and District's Certifications**

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.* 

- 1. The school has some configuration that includes grades Pre-K-12.
- 2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
- 3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
- 4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
- 5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
- 6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
- 7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

# U.S. Department of Education Green Ribbon Schools 2014-2015

☐ Charter ☐ Title I ☐ M	Iagnet ☐ Private ☐ Independent
Name of Principal: <b>Dr. Lucinda Lee Katz</b>	
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)	
Official School Name: Marin Country Day School	
	(As it should appear on an award)
Official School Name Mailing Address: 5221 Paradise Drive, Corte Madera, CA 94925	
	(If address is P.O. Box, also include street address.)
County: <b>Marin</b>	State School Code Number *: N/A
Telephone: (415) 927-5900	Fax: (415) 924-1082
Web site/URL: www.mcds.org E-mail: info@mcds.org	
*Private Schools: If the information requested is not applicable, write N/A in the space	
I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.	
Ani Lett	
Special Sector	Date: <b>January 12, 2015</b>
(Principal's Signature)	

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Name of Superintendent: N/A – Private School

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: N/A - Private School

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

Date:

(Superintendent's Signature)

#### **Nominating Authority's Certifications**

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

- 1. The school has some configuration that includes grades Pre-K-12.
- 2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
- 3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: California Department of Education

Name of Nominating Authority: State Superintendent of Public Instruction Tom Torlakson

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the

provisions above. -

Tom Tonlakson Date: January 27, 2015

(Nominating Authority's Signature)

## SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars and nine Elements. Then, include documentation and concrete examples for work in every Pillar and Element.

## **SUBMISSION**

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

> OMB Control Number: 1860-0509 Expiration Date: February 28, 2015

#### **Public Burden Statement**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

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# Marin Country Day School

California Private School Nominee to U.S. Department of Education Green Ribbon Schools





Prepared by California Department of Education School Facilities and Transportation Services Division http://www.cde.ca.gov/ls/fa/sf/greenribbonprog.asp January 2015

#### PART II – SUMMARY OF ACHIEVEMENTS

# Marin Country Day School, Corte Madera, Calif.

Inspiring, nurturing, and challenging students through sustainability

Environmental sustainability has been a focus at Marin Country Day School (MCDS) for many years, though it formally became a part of the school's strategic plan in 2006. To advance sustainability goals, MCDS created the Environmental Oversight Committee (EOC). With broad representation, the EOC ensures buy-in and agency from all parts of the community.

MCDS has reduced greenhouse gas (GHG) emissions through careful attention to new construction equipped with green features such as daylighting, living and white roofing, and radiant heating and cooling. Photovoltaics on new and existing construction also serve to reduce GHG emissions. Water conservation and efficiency is improved through campus bioswales, landscaping, and a rainwater catchment system. Waste reduction efforts include employing reusable dishware and flatware on campus, utilizing 3-bin waste stations (recycle, compost, trash), and implementing green purchasing guidelines, a waste protocol, and a green events checklist for campus events. Student-led efforts, such as TerraCycle and conservation projects, round out efforts in this area. In the area of transportation, MCDS promotes carpooling and arranges bus routes to ensure maximum possible bus ridership, resulting in a large majority of students arriving at school via bus or carpool.

MCDS also addresses the health and wellness of students, faculty, and staff in an intentional and systematic way. School facilities are carefully maintained to support a healthful, chemical-free learning environment. The school provides a robust physical education program, and much of the instruction takes place outdoors on playing fields, blacktop areas, and adjacent Ring Mountain. The MCDS food program almost exclusively utilizes environmentally preferable food. Moreover, as the Culinary Farm program grows, more and more produce comes directly from campus gardens, offering students the opportunity to be involved in the farm-to-table process. MCDS further supports the well-being of students by providing school counselors and a school nurse and by partnering with outside agencies for education in areas such as body image, human sexuality, and drug and alcohol awareness and prevention. MCDS likewise supports the well-being of faculty and staff through such measures as reduced-fee gym membership, an onsite yoga class, and an employee assistance program.

Finally, MCDS has worked diligently to provide environmental and sustainability education to students. A rich program allows students at all grade levels to gain an understanding of systems, systems thinking, and the environment. More importantly, students have multiple opportunities to engage in service and civic engagement related to the environment in the K-8 curriculum and through extracurricular activities. From kindergartners collecting compost, to school-wide non-native plant abatement with partners from Marin County Parks on Earth Day, to a student-designed and -led "no idling" campaign targeted to parents in the carpool line, MCDS students turn their learning into action. Working with community partners ranging from Teens Turning Green to the Golden Gate National Recreation Area, and by learning about the green features of the school buildings and how they were designed, MCDS students become aware of green career pathways they may wish to pursue. The school's STEAM initiative is well underway and is a major part of the current strategic plan, SP2012. The school layers STEAM opportunities into the existing curriculum in innovative ways and provides many rich extracurricular opportunities, such as robotics, open making, Tech Challenge, coding, and aquaponics. Summer camps also have a STEAM focus, providing a "wrap-around" experience for students.

# PART III – DOCUMENTATION OF STATE EVALUATION OF DISTRICT NOMINEE

# Pillar I: Reduce Environmental Impact and Costs

#### Element IA: Energy

- In 2014, MCDS joined the EPA's Green Power Partnership.
- With the help of the Green Schools Alliance, MCDS became one of 24 schools in the Power Purchasing Consortium committed to buying renewable energy credits. MCDS participates annually in the Green Schools Alliance's Green Cup Energy Challenge. This program requires the school to monitor energy use for one month and compare the results against the baseline. MCDS has consistently reduced energy use each year. In 2010, MCDS placed first in California, reducing usage by 35% (reduction of 16,884 kWh or 22,625 lbs. of carbon).
- The school installed a Building Dashboard (through LUCID) to monitor energy use and establish goals for reduction. Plans to create goals around energy consumption and reduction will take place during the 2014-15 school year.
- Since the completion of extensive new construction and a campus remodel in 2010, a 95.5 kW photovoltaic system has eliminated 3,282,779.20 pounds of CO2, 594.3 pounds of NO, and 1,169.2 pounds of SO2. Data in real-time, with numbers are based on US DOE, state-wide or IEA country-wide averages calculated from the kilowatt hours generated by the system.
- MCDS has reduced total non-transportation energy use by 11% from October 2011 to June 2014. The current use is 425 kWh/student/year or 3.5 kBTU/square foot/year.
- MCDS obtains 43% of the school's energy from the onsite photovoltaic system. 100% of purchased energy is from renewables: 50% solar, 45% biomass, and 5% biogas.
- MCDS participated in the EPA's first Energy Consortium. Each participating school has committed to making an annual purchase of Renewable Energy Credits (RECs). The RECs will be used to generate clean, renewable energy for the national grid. MCDS purchases 2,800 kW of RECs each year.
- Campus renovations completed in 2010 resulted in 39% of school buildings meeting green standards (9,515 square feet of LEED Gold and 22,867 square feet of LEED Platinum). The Multipurpose Room 2 (MP2) uses sustainably-harvested structural lumber. Solar panels heat water for the kitchen dishwasher; flooring is reclaimed from a gym. Daylighting techniques allow MCDS to reduce the use of electric lights. The Admin and Learning Resource Center (LRC) buildings utilize radiant heating and daylighting techniques. VOC-free paints and adhesives and formaldehyde-free particle board are used throughout; rugs are certified green. The living roof on the Admin building captures rainwater, resulting in better cooling and extending the roof's life. A white roof reduces the heat island effect. Bioswales remove pollution from stormwater runoff. The LRC uses rainwater for toilet flushing and radiant cooling and is recognized as the first "zero energy" classroom building in North America. MCDS became a Marin County Certified Green Business in 2007.
- Roofing on older buildings is replaced with cool roofing, and newly-constructed building roofs comply with Title 24. The living roof on the Admin building captures rainwater, resulting in better cooling and extending the life of the roof by protecting it from heat, while its white roof reduces the heat island effect on campus. Ground surfaces in the

- renovated areas of campus are unpaved (with decomposed granite in place) to reduce the heat island effect and regulate water flow.
- In 2005, MCDS conducted an energy audit with Pacific Gas & Electric (PG&E). As a
  result, the school retrofitted all exit lighting to LED, retrofitted T12 fluorescent fixtures to
  efficient electronic ballasts and T8 bulbs. MCDS also makes strong efforts to purchase
  ENERGY STAR products.

#### **Element IB: Water and Grounds**

- MCDS' water use is 1,263 gallons per person per year.
- 95% of the school's landscaping considered water-efficient and/or regionally appropriate (excluding playfields). The school is supported on 16 acres of developed property, including three acres of lawn for athletic fields and play areas. The landscaped portions are water efficient. Natives, succulents, and Mediterranean climate plants dominate the grounds. Three campus gardens supply the school's food program and function as classrooms.
- Playground renovations in 2010 increased the wood chip playground surface and incorporated multiple wooden decks. Storm water is managed by multiple bioswales that run throughout campus, decomposed granite in place of asphalt, a green living roof, and a 15,000 gallon cistern that captures rainwater that is used for toilet flushing.
- MCDS' water source is the Marin Municipal Water District (MMWD). It is a closed water
  system with backflow preventers, preventing contaminants from irrigation water from
  entering the domestic water system. Backflow preventers are serviced annually. MCDS
  has also installed water filters on kitchen water supplies and six campus water fountains.
  MMWD tests the drinking water for lead. MCDS conducted secondary water testing
  using a certified service; the report results stated that no lead was detected and that the
  school has favorably clean drinking water.
- 50% of the school grounds are devoted to ecologically beneficial uses. About half of the 35-acre MCDS campus is unaltered natural habitat with two ephemeral creeks and a healthy oak woodland ecosystem, offering many opportunities for students. Campus vegetation includes native species and drought-tolerant plants; Biodiversity surveys conducted by students reveal a wide variety of both flora and fauna. The dock, creeks, gardens, green roof, nesting boxes, and adjacent Ring Mountain Open Space serve as outdoor teaching spaces.

#### **Element IC: Waste**

- 30% of solid waste is diverted from landfilling or incinerating due to reduction, recycling, and/or composting, and service is stopped or reduced during non-service times. The monthly waste generated per person is 0.06 cubic yards.
- 100% of the school's total office/classroom paper content is postconsumer material, fiber from forests certified as responsibly managed, and/or chlorine-free.
- Any significant amount of hazardous waste that is accumulated is disposed of at Marin Recycling HHW. In general, the school is not a generator of hazardous waste. The sole exception is asbestos removal – 90%+ is gone, with the remaining 10% percent expected to be removed by June 2017. Asbestos abatement is ongoing, and removal observes strictest EPA and local guidelines.
- In September of 2013, the custodial team began tracking the number of recycling bins
  put out to the curb each week and noting how full each bin is. The same data is collected
  for garbage. MCDS is hoping to have a clear set of baseline data in order to see what

- effect the efforts to reduce waste and raise awareness around waste are having. The school aims to use the baseline data to set further waste reduction goals.
- MCDS' purchasing protocol prompts forward thinking about items' lifecycle and recyclability. A Green Events protocol helps event planners plan waste-free events. The school serves food on reusable dishware and composts all food and paper waste. iPad use in classrooms minimizes paper. A waste protocol ensures that unwanted classroom items are donated. The school's online Freecycle platform allows the community to give away or take items for free. To eliminate hazardous waste, the school avoids buying such products when possible.
- The goal of the school's green cleaning custodial program is to minimize occupant and worker exposure to aggravating or harmful chemicals released into the indoor environment during cleaning. The school gives special attention to floor, desk, and worktop surface maintenance procedures that minimize or eliminate harmful chemical use. Green Seal Certified cleaning supplies include Chemetrol 44 (general purpose), Chemetrol 51 (non-ammoniated glass cleaner), Chemetrol 33 (bowl & restroom cleaner), and Chemetrol 81 (neutral floor cleaner). 50% of all cleaning products is third-party-certified as green.
- MCDS' Green Purchasing Protocol serves as a guide to environmentally responsible purchasing for the entire community (faculty, staff, parent leaders). The protocol lists questions that help the purchaser assess factors such as where the product was made; resources used to make the product; lifecycle of product; potential to refill, reuse, compost, or recycle; packaging; and potential toxins. In addition, the school provides information about vendors of environmentally responsible products. A "Hot 12" list of the most frequently ordered supplies and recommended vendors for these products is provided to the community and displayed in the faculty/staff workroom. A humorous video for faculty/staff created several years ago highlights the importance of green purchasing and is shown regularly.

## **Element ID: Alternative Transportation**

- MCDS estimates that 66% of students ride the school bus and 23% carpool. Bus
  ridership was determined based on sign-up data from the Director of Transportation. The
  school is not accessible by public transportation, and only a handful of students bike or
  walk to and from school on an occasional basis. Data on carpooling was obtained
  through a school database.
- Bus ridership is at an all-time high. MCDS owns a hybrid bus, equips buses with particulate traps, and uses low-sulfur diesel. Buses are filled to capacity for field trips and use efficient routes. Vans are used for sports and small group field trips.
- MCDS has designated carpool parking stalls, a well-publicized no-idling policy that applies to all vehicles (including school buses that are required to meet the California Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools Regulation), and vehicle loading/unloading areas that are at least 25 feet from building intakes, doors, and windows.
- Secure bicycle storage is provided to encourage bicycling to school. MCDS offers an annual Bike/Walk/Carpool to School Day to encourage these activities. On this day, the school organizes groups of walkers and bike riders, and administrators walk with groups of students.
- MCDS conducted a carbon audit of field trips and outdoor education trips for the 2013-2014 school year to gather baseline data and make a plan to reduce and/or offset

emissions. As a result, the field trip form was revised to include a carbon emissions calculation and intended to establish a carbon emission reduction goal for trips.

# Pillar II: Improve the Health and Wellness of Students and Staff

## Element IIA: Environmental Health

- MCDS is relatively pest-free with the exception of occasional ants. Because the campus is nestled next to the Ring Mountain Open Space Preserve, gophers, mice, or rats visit occasionally and are removed by standard trap methods. MCDS does not use poisons or pesticides on campus and has a longstanding practice in this regard.
- · Smoking is not allowed on any part of the MCDS campus.
- To mitigate mercury exposure, all old thermostats containing mercury have been removed.
- To prevent occupants from exposure to carbon monoxide, the school installed sensors in all rooms with gas furnaces.
- MCDS adheres to the Asbestos Act and has an asbestos management plan in place.
  The school received an asbestos audit and identified locations containing asbestos.
  Prior to major construction, some asbestos on campus was removed properly by certified professionals. Remaining asbestos is mainly in floor tiles covered by carpet and intact.
- MCDS utilizes redwood for playground structures to ensure the absence of Chromate Copper Arsenate and purchases low-VOC paints and adhesives. The art department takes care to select non-toxic acrylic paints and other supplies. Cleaning supplies are third party green certified. MCDS does not use pesticides. All paints, thinners, cleaning, or other maintenance materials are in storage spaces off limits to students and staff.
- MCDS classrooms contain ceiling panels and carpets to assist with acoustics. All
  classrooms are equipped with sound systems to ensure that students can hear the
  speaker from all parts of the room. To ensure adequate lighting, the newest classrooms
  employ daylighting techniques with sun shades and skylights. Older classrooms use
  natural light when possible: T8 and T5 bulbs to provide soft lighting.
- Lead testing was done on older modular rooms dating back to their 1960 purchase.
   MCDS currently has four buildings that tested positive for lead paint. Two other of the same type of buildings have since been removed. The school ensures that there are no loose paint chips in classrooms and has painted over surfaces with non-lead low-VOC paint. The school monitors carefully to ensure all paint is intact.
- To prevent exposure to asthma triggers in and around the school, MCDS prohibits smoking on campus, eliminating tobacco smoke as an asthma trigger. The school acts quickly to remove pests and keeps the interior spaces extremely clean and dust-free. Custodians use low-fragrance Green Seal Certified cleaning products. Kitchen staff label food containing items that may contain allergens such as shellfish, and MCDS is a completely nut-free campus.
- MCDS receives real-time leak reports from faculty and staff during the rainy season.
   Most leaks are easily taken care of by the facilities crew; when this is not the case, a roofing contractor is retained for repair or replacement as needed. In the one instance where mold was found, it was removed by a certified mold abatement specialist.
- MCDS has installed local exhaust systems for major airborne contaminant sources. The school inspects, cleans, and changes HVAC system filters every three months. If a unit fails, maintenance staff troubleshoots and repairs.

- All classrooms and offices have exterior access via windows, doors, and operational skylights to ensure appropriate ventilation. This main source of outdoor air is controlled manually by faculty and staff. The newer LEED Platinum buildings have CO2 sensors that alert occupants if levels get high so that they can open a window or door to let fresh air in.
- To protect indoor environmental quality, the maintenance crew performs a campus walk-through every two months. This includes landscaping, playgrounds, and all aspects of buildings (lighting, heating, moisture, mold, pests, etc.). The Facilities Director, maintenance, and landscaping staff do periodic additional campus walks, creating both indoor and outdoor maintenance item lists. Custodians are well trained and clean every space daily, informing the maintenance team of any issues they spot on their nightly cleaning route. Faculty and staff also play a huge role in identifying and alerting the Facilities Department of real-time environmental or safety issues. A "request maintenance" online procedure allows teachers to alert staff of concerns, and these are given top priority. MCDS takes care with the selection of materials and cleaning supplies to ensure that all materials are safe and energy-efficient.

#### **Element IIB:** Nutrition and Fitness

- The MCDS lunch program offers healthful, homemade foods utilizing fresh, local, organic produce; all food is GMO-free (90% environmentally preferable). Campus gardens provided over 3,000 pounds of produce to the school lunch program during the 2013-2014 school year. Organic fruit is available to students throughout the day.
- Students participate in 140 minutes of physical education per week in grades 6-8; 160 minutes per week in grades 1-5; and 120 minutes per week in kindergarten. Well over 50% of PE class occurs outside on one of two fields. PE programs emphasize movement, skills, and sportspersonship; sample activities include gymnastics, cooperative games, sport-specific units, and fitness. After school sports (cross country, track and field, soccer, basketball, volleyball, and soccer) are optional in grades 5-8. All students have 40 minutes of recess per day, with many opportunities for active and ball play.
- School wellness policies extend into afterschool programs, with snacks utilizing ingredients supplied by the school kitchen.
- MCDS provides nutrition information to families by posting the school menu on the
  website. Kitchen staff maintain a detailed list of student allergies, communicate weekly
  with families of younger students with food allergies, and clearly label foods in the lunch
  room.
- MCDS offers overnight outdoor education trips in grades 3 (Walker Creek Ranch), 5 (St. Dorothy's Rest), 6 (Yosemite), 7 (Joshua Tree), and 8 (Ansel Adams Wilderness). Many day trips offer outdoor education experiences (e.g., farm field trips in grade 6, Golden Gate National Recreation Area in grade 4; Lobos Creek in grade 3). Students in grades K-4 spend 40 minutes every other week in the garden; Upper School students may participate in a garden elective once weekly for an hour.
- School gardens yield fruits and vegetables that are used daily in the school food program, which is available to staff. Ingredients that come from the garden are listed on the lunch room whiteboard and labeled on the salad bar daily. In addition, fresh, organic fruit is available to school staff throughout the day. Surplus produce from the gardens is offered to faculty and staff for home use. School staff are made aware of a discount for MCDS employees at a local gym, and weekly staff yoga classes are offered at school

free of charge. In addition, informal Ring Mountain hikes and weekly basketball games are offered.

- MCDS began offering a summer farm camp as part of a Culinary Farm Program in the summer of 2014. Partnering with the Mann Family Farm and the Bolinas School in Bolinas, the program was held both at the Mann Family Farm and MCDS and focused on farm and animal care (egg collection, feeding animals, daily harvesting, and tilling), cooking using harvested items (salad, pizza, bread, potato salad, and berry ice cream) and crafts (spun wool, salve made from herbs, and farmer's market bags). MCDS plans to expand the camp in 2015.
- MCDS offers most components of a Coordinated School Health approach, including health education (health and wellness via PE in all grades; mindfulness in all grades; human sexuality and substance abuse prevention in grades 4 and above), physical education (weekly classes ranging from 120-160 minute per week depending upon grade as previously described), health services (part-time school nurse; consulting physician; consulting neuropsychologist), counseling services (two school counselors: 100% for grades K-5; 60% for grades 6-8), healthy and safe school environment (attention to aesthetics, psychosocial climate and physical conditions), and health promotion for staff (weekly yoga and mindfulness; discount on local gym membership; employee assistance program).
- MCDS has partnered with several organizations to improve student health, including:
  - FCD (Freedom from Chemical Dependency), providing drug and alcohol prevention education to students annually.
  - o Common Sense Media, providing digital citizenship skills to students.
  - Stanford's Challenge Success, examining student stress at school and designing custom solutions. This partnership resulted in significant shifts to the school schedule.
  - o The Body Positive, educating students about body image and eating disorders.
  - o Girls on the Run, inspiring confidence, health, and empowerment in girls.
  - Corte Madera Fire Department, speaking with children in grades K and 1 about fire safety.
  - Teens Turning Green, hosting the founder (an MCDS alum) and the farmer who provides organic apples to the school at assemblies.
- MCDS has a 56%-time nurse to treat sick and injured students, ensure that student
  health forms are complete and up-to-date, distribute important health information about
  students to teachers, and consult with parents, teachers and staff. The school nurse also
  reviews notices of infectious diseases that are sent to parents.
- School counselors (100% in grades K-5; 60% in grades 6-8) assist with student concerns and consult with parents, teachers, administrators, and outside professionals. Counselors meet with individual students when needed. MCDS provides groups to promote student mental health and school climate, including groups for students of divorced parents led by school counselors, drop-in groups for 7<sup>th</sup> and 8<sup>th</sup> graders led by a counselor, and Teaching Equity and Acceptance affinity group led by faculty members. MCDS provides mindfulness practice in grades K-8, with the goal of building students' awareness of the self and others. The SEL (social-emotional learning) curriculum is the foundation of bullying prevention and includes Responsive Classroom, Talk it Out, Social Smarts, and Open Session techniques to build community. The entire staff has been trained in the No Bully program, and a number of staff have been trained as coaches to use the No Bully Solution Team peer problem-solving approach.

# Pillar III: Provide Effective Environmental and Sustainability Education

#### Element IIIA: Interdisciplinary Learning

- MCDS had a 5-year partnership with the Cloud Institute for Sustainability, adopting the Education for Sustainability (EfS) standards and adding them to the online curriculum mapping tool (Rubicon Atlas) to ensure their integration across curriculum areas and grade levels. Faculty became familiar with the standards through workshops and presentations by Jaimie Cloud. Teachers were invited to work in teams or individually with Jaimie Cloud to design and implement curriculum that integrated the standards at a deep and meaningful level. In addition, many faculty attended the Cloud Institute's Design Studios offered in the summer.
- A key part of the Cloud Institute's curriculum design framework involves assessment of student learning. While working closely with Jaimie Cloud, teachers were guided to analyze student work through formal and informal assessments to determine student mastery and make adjustments to the curriculum, as needed. A subcommittee of the Environmental Oversight Committee, "Teach. Learn. Engage. Act.," is incorporating the school's environmental vision and ethic by providing leadership for such efforts as Citizen Science, service, and student leadership.
- The K-8 service program incorporates many opportunities for students to offer service through agencies such as Marin County Parks and Richardson Bay Audubon, and MCDS is constantly seeking new opportunities for students to partner with environmental agencies through service.
- Student clubs, including Green Team, Eco Council, and Lower School Bird Club, support environmental education efforts with action projects. The Green Team leads multiple Terracycle projects (e.g., collection of writing instruments and cheese stick wrappers), organizes campus clean-ups, and leads the Green Cup Challenge each year. In addition, this group raises student awareness of environmental issues by making presentations at school assemblies. The Upper School Eco Council has now been integrated fully into the Student Council and helps to ensure that an environmental sustainability lens is applied to all student activities. For instance, this year's Student Council awarded a prize to the "greenest" booth at the Halloween fair. The Lower School Bird Club meets on a regular basis to explore ways to ensure that the campus continues to support the many species of birds who make their home here. Bird Club efforts have included adding nesting boxes on campus and problem-solving solutions to the many collisions of birds to windows that occur on campus.

### Element IIIB: STEM Content, Knowledge, and Skills

The K-8 science curriculum includes multiple units based on sustainability and the environment. Teaching methods in science utilize technology, engineering practices, and mathematics. For example, in the third grade solar energy unit, students design solar-powered vehicles for the kindergarten classes to use to accomplish work on their simulated farms. In the fifth grade conservation study, students design a mechanism to measure trash in their homes over the course of a week. In the eighth grade unit on air quality, students learn principles of chemistry as they explore the essential question, "How can you improve the air quality in your community?" In this unit, students learn about states of matter, atomic theory, and other fundamental chemistry concepts, and apply their knowledge to design ways to measure and analyze air quality on campus. They must also come up with solutions for improving air quality.

- In addition to units that are specifically focused on the environment, an environmental lens in frequently applied to other subject matter. For instance, during study of the San Francisco Bay in second grade, students explore the health of the Bay, learn about factors associated with the Bay's health, and explore ways that they can be effective stewards of the Bay on an individual and group level. Study of the environment is also incorporated in different disciplines and in interdisciplinary study. In fourth grade, for example, students learn about the native and non-native species on neighboring Ring Mountain as part of their year-long social studies unit on California history. They explore the effects of non-native species on the ecosystem.
- MCDS has added some innovative STEM or STEAM (including arts) programming in formal and informal ways throughout the school. This year, the school is introducing tinkering carts to all classrooms in grades 1-4 to allow students to tinker with various materials and explore their passions. Each grade level has a cart supplied with various different materials (connectors, fasteners, tools, building supplies, etc.) and will have a formal introduction to tinkering. Teachers may use the carts as they wish and students will have open-ended tinkering time during recess. For Upper School, the Makers' Lab is open during recess for open-ended tinkering work.
- In the electives program, students are exploring robotics using Hummingbird. MCDS also offers an aquaponics elective in which students designed and maintain a campus system located in the garden. MCDS also offer Tech Challenge (organized by San Jose Tech Museum) for Upper School students after school. This team competes in a competition locally, and this year's challenge is to create a structure that can withstand an earthquake. For Lower School students, a similar integrated STEAM experience is offered after school in which students are currently designing fountains that recycle water. They will create a working fountain for our Lower School playground. MCDS has introduced coding in all grade levels using Beebots, Lightbots Tynker, Blockly, Scratch, and Python. One summer program, WonderLab is a public-private partnership with Laurel Dell School. Through this STEAM-focused camp, rising fourth graders learn STEAM skills and build cultural competency skills.
- Students learn about green technologies through the curriculum (e.g., study of solar energy and solar panels in grade 3; conservation projects in grade 5). In addition, all students learn about the campus green features through the dashboard in the Learning Resource Center. The dashboard displays analytics as well as static information about campus green features. When the new LEED buildings opened, students trained as docents to orient visitors to specific green features. Students have learned about career pathways through presentations by architects who designed the green buildings and green landscaping features; the Army Corps of Engineers, partnering with the school to monitor the health of the onsite creek; and professionals from partner agencies, including Marin County Parks, Richardson Bay Audubon, and Golden Gate Recreation Area.

#### **Element IIIC: Civic Knowledge and Skills**

- MCDS views civic action both in the school community and in the wider community as an essential part of sustainability education. Projects vary from year to year and have included the following:
  - Campus composting: kindergarteners use trikes with trailers to collect campus compost from kindergarten and first grade and add to the campus compost.
  - First Grade Library: First graders study the library as a commons and create their own library for the community.

- Bay Study: Second graders created playing cards with facts about the Bay environment for MCDS classrooms.
- Ring Mountain Tours: Following their study of the plants of Ring Mountain, fourth graders offered docent tours of Ring Mountain to classes at MCDS and a neighboring school.
- Golden Gate National Recreation Area: Fourth graders team with GGNRA to support habitat restoration, maintain trails, and work in plant nurseries.
- Native Plant Books: Fourth graders created a book about native plants in the region. As an integration of science, art and social studies, students researched native species and created scientific drawings of plants. Students presented the books to the Corte Madera Public Library to add to their collections and made a presentation about their learning at the library.
- Community Internships: Seventh and eighth graders engage in community internships throughout the year. Students are matched with agencies by interest, and options always include some with a focus on the environment, such as Marin County Parks and Richardson Bay Audubon.
- Earth Day: Each year on Earth Day, MCDS partners with Marin County Parks for a school-wide service on neighboring Ring Mountain. Students in all grades work with park rangers to pull the invasive French Broom from Ring Mountain. Last year for Earth Day, the school joined up with Marin Audubon Society at nearby Triangle Marsh to pull invasive plants.
- Students have meaningful outdoor learning experiences at every grade level:
  - Kindergarten: Students work in the school gardens and take field trips to area farms
  - First Grade: Students visit Shorebird Marsh and Crissy Field to study birds in conjunction with their bird study. Students also work in the campus gardens and care for chickens.
  - Second Grade: Students visit Tennessee Valley and Hawk Hill in conjunction with their geology study. They also visit Crissy Field, the Marin Marine Mammal Center, and MCDS' own campus dock during their Bay study. Second graders work in campus gardens, care for campus chickens, and make dyes out of plants on campus to dye wool in art class.
  - Third Grade: Students visit Golden Gate Park and Lobos Creek for their yearlong study of San Francisco. They also attend a one-night overnight at Walker Creek Ranch in Petaluma. Third graders also work in the garden and care for campus chickens.
  - Fourth Grade: Students partner with Golden Gate National Recreational Area to maintain the natural habitat. In conjunction with their social studies unit on the Coast Miwok, students spend a significant amount of time on Ring Mountain learning about the Miwok way of life and learning about native plants. Students also work in campus gardens.
  - Fifth Grade: Students attend a one-night overnight hiking trip at Saint Dorothy's Rest in Occidental, CA. Elective programs in gardening and aquaponics are offered.
  - Sixth Grade: Students visit many local farms in conjunction with the science unit on food systems. They visit Yosemite National Park for a 5-day, 4-night overnight camping and hiking trip. Elective programs in gardening and aquaponics are offered.

- Seventh Grade: Students backpack in Joshua Tree National Park for six nights.
   They rock climb, scramble, and work with a naturalist. Elective programs in gardening and aquaponics are offered.
- Eighth Grade: Students backpack in Ansel Adams Wilderness for four nights.
   Elective programs in gardening and aquaponics are offered. Community
   Internships with environmental agencies are available.
- Outdoor learning experiences at MCDS provide a rich context for multidisciplinary learning. For example, prior to the seventh grade outdoor education trip to Joshua Tree National Forest, students learn about indigenous plants and wildlife of the desert. In art, they make prints of local animals. While on the trip, they meet with a naturalist to learn more about plant life, learn relevant Native American lore, and create and utilize paints made from natural materials found in the desert environment. In addition to specific content knowledge and skills, this trip allows students to practice habits of mind that MCDS believes are essential for all learners, including collaboration, creativity and innovation, curiosity, and resilience. Students also fulfill mindfulness goals during their "solo" time on the trip.
- Outdoor experiences also provide students with a means to forge connections beyond MCDS and engage in civic action. Many Community Internships in eighth grade involve outdoor experiences, including placements at Marin County Parks and Richardson Bay Audubon. Through these placements, students contribute to the work of these agencies.
- On Earth Day, students take part in the abatement of invasive plants on Ring Mountain in collaboration with rangers from Marin County Parks. Students also engage a service project related to their study of Ring Mountain in fourth grade. Students must design a service project and mission statement designed to take care of the Ring Mountain habitat.
- MCDS organizes family service days in conjunction with local groups; these have included a Ring Mountain clean-up day with Marin County Parks and a gleaning day at Star Routes Farm. The school's Family Service website also promotes opportunities for families to pursue independently, including the Growing Great school garden program in Sausalito, Marin County Parks and Open Space, and Richardson Bay Audubon.
- MCDS partners with the Mann Family Farm for the summer Culinary Farm Camp, regularly participates in the Audubon Society's Great Backyard Bird Count (a Citizen Science project) reporting sightings of birds on campus, and is currently exploring other Citizen Science projects. For Earth Day each year, MCDS partners with Marin County Parks or Marin Audubon Society at Triangle Marsh to pull invasive plants and protect the habitat.
- The fall 6th grade science curriculum is centered around sustainable food systems, so the students spend two days working at farms, community and school gardens, among other community partners, learning about those agencies' work and their role in healthy, sustainable food systems. In 8th grade, students spend six days working with various community partners (some of which have an environmental sustainability focus) to understand the work that they do to and to develop a "Community Action Plan" to help those agencies work even more effectively and efficiently.







#### Dear MCDS Faculty and Staff,

Hi, we are Daphne James, Lucy Moore, and Cate Cuttcliffe. We are working on our fifth grade conservation project, which is to have green school supplies at MCDS. We have looked through the **Office Depot catalogue** and marked all of the post consumer content supplies with a post-it. We also made a **list** (attached) of what supplies you can buy from Office Depot that are green.

We also found a website called **www.thegreenoffice.com**. The green office is website that sells school and office supplies that are good for the earth. It also has symbols that explain why they are green and how green they are.

Dawn told us about another website that has eco-friendly school supplies. It's called <a href="http://www.officedepot.cc/environment/index.asp">http://www.officedepot.cc/environment/index.asp</a>. It explains the reason for being green and other information about their supplies. Next time you need something new, we hope that you take a look at these websites, or read our list!

Thank you,

Daphne, Lucy, and Cate



Clockwise from bottom: Students monitoring conditions in the creek on campus; The school's LUCID building dashboard showing real-time electricity consumption; MCDS standings in the Green Cup Energy Challenge (2014); A student letter to MCDS faculty and staff encouraging them to purchase environmentally preferable office products; Students creating solar cars.







Clockwise from bottom: Students engage in hands-on conservation projects, using the school buildings and grounds as a learning tool; School greenhouse; Student conservation projects encourage faculty and staff to save electricity.